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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,746	06/18/2001	Ivan Bella	37005-171895	8757
26694	7590	02/20/2004	EXAMINER	
VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP			BELL, MELTIN	
P.O. BOX 34385			ART UNIT	
WASHINGTON, DC 20043-9998			PAPER NUMBER	

2121

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,746

Applicant(s)

BELLA ET AL.

Examiner

Meltin Bell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 6, 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-14 and 17-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Response to Amendment

1. This action is in response to the Amendment and Reply Under 37 C.F.R. 1.111 and 1.121 filed 2/6/04 in application 09/881,746.

2. Currently amended claims 1, 17 and 22-23 as well as original claims 2-5, 7-14 and 18-21 filed by the applicant have been entered. Claims 6 and 15-16 are withdrawn from consideration as a result of applicant's cancellation.

3. (Currently amended) claims 1-5, 7-14 and 17-23 have been considered, but they are not persuasive.

4. (Currently amended) claims 1-5, 7-14 and 17-23 stand rejected under 35 U.S.C. 102(b) & 103(a) as being anticipated by *Lin et al* "Dempster-Shafer Reasoning for Medical Image Recognition" (November 1991) and unpatentable over *Lin et al* in view of USPN 5,418,888 to *Alden* (May 23, 1995) and USPN 6,058,206 to *Kortge* (May 2, 2000).

In the remarks, applicant argues that the cited references fail to disclose:

I.) rules deduced by a learning system

II.) truth data files

III.) a learning system controller

IV.) a statistics space

V.) spatial and physical relationships

VI.) temporal relations

In response to applicant's argument,

I.) It is noted that *Lin et al* teaches rules in the belief model (p. 481, section 3, sentence 2, "In the proposed model...form of multivariate belief functions") while *Kortge* teaches learning systems

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in feature based adaptive pattern recognition (column 1, lines 21-26, "In such circumstances...than other approaches"). The motivations for combining the two are tolerating noise (*Kortge*, column 1, lines 25-26, "in general...other approaches") and offering performance comparable to that of a human expert (*Lin et. al.*, section 1, sentence 1, "An expert...specialized problem domain"). Therefore, the rules deduced by a learning system limitation is met by the references.

II.) It was noted that *Lin et al* teaches rules in the belief model (p. 481, section 3, sentence 2, "In the proposed model... form of multivariate belief functions") while *Alden* teaches predicting unrecognized objects (column 46, lines 6-16, "the mere fact...then always do the following"; column 47, lines 61-63, "the firing behavior...predicted by the test tables"). *Lin et al* also teaches truth (p. 481, section 3.1, "The fact in...anatomic structure), respectively") while *Alden* also teaches truth (Fig. 4, item 22) and a data file (Fig. 4, item 14). The motivations for combining the two are avoiding search strategies problems, increasing system running speed and easing programming/debugging (*Alden*, column 4, lines 3-15, "The invention achieves...correctly constructed") and offering performance comparable to that of a human expert (*Lin et. al.*, section 1, sentence 1, "An expert...specialized problem domain"). Therefore, the truth data file limitation is met by the references.

III.) It was noted that *Kortge* teaches learning systems in feature based adaptive pattern recognition (column 1, lines 21-26, "In such circumstances...than other approaches"). *Kortge* also teaches such a system as a controller (column 1, lines 10-19, "Pattern recognizers can...to minimize congestion"). Therefore, the learning system controller limitation is met by the reference.

IV.) It is noted that *Kortge* teaches a controlled statistics space (column 13, lines 11-20, “My preferred inference...the network model”). Therefore, the limitation is met by the reference.

V.) It is noted that *Lin et al* teaches physically related classes (p.482, section 4, paragraph 2, sentence 4, “The second...in the image”) and spatially related classes (p. 483, section 4.1.3, paragraph 4, sentence 1, “Spatial relationship...plane is predefined”). Therefore, the spatial and physical relationship limitation is met by the reference.

VI.) It is noted that *Kortge* teaches the after type (column 10, lines 65-66, “One use of...for future use”), the before type (column 14, lines 4-11, “because the noisy-OR...FIG.3”) and the exists with type (column 1, lines 27-29, “Feature based recognition...exist within the pattern”). Therefore, the temporal relations limitation is met by the reference.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meltin Bell whose telephone number is 703-305-0362. The examiner can normally be reached on Mon - Fri 7:30 am - 4:30 pm EST.
6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on 703-305-0282. The fax phone number for the organization where this application or proceeding is assigned is 703-746-5514.
7. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MB / *gmu* . B,

Wilbert L. Starks, Jr.

Wilbert L. Starks, Jr.
Primary Examiner
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